

Analysis of Transaction Size Distribution on HKEx

Joseph Lee and Yan Yuhong¹

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Summary

- Small-sized transactions² account for a large share of trades, but a disproportionately small share of the transaction value. In contrast, large-sized transactions³ constitute a small share of trades, but a disproportionately large share of the transaction value.
- The share of Category A brokers in both large-sized and small-sized transactions has been increasing. On the other hand, Category C brokers have been losing shares in both large-sized and small-sized transactions. The trading activities of Category C brokers appeared to be more sensitive to changes in market sentiment, especially during 2000-2002 when the market turnover shrank.
- By stock type, the trading has been more concentrated on HSI stocks and Mainland stocks. The share of HSI stocks in large-sized transactions and small-sized transactions has been increasing. On the other hand, other stocks⁴ accounted for most of the small-sized transactions, but they have been losing share in large-sized transactions.

Introduction

In 2002, there were 20.5 mn trades on HKEx, or an average of 83,148 trades a day (Table 1). With a total market turnover of HK\$1,646.9 bn in the year, the average transaction size was HK\$80,191.

These have dropped from the peak year of 2000 when there were 36.9 mn trades, or 149,278 trades a day. With a total market turnover of HK\$3,136.0 bn, the average transaction size was HK\$85,050 in 2000.

The total and average number of trades as well as the average transaction size in 2002 were also smaller than in 1999 and in 2001.

	1999	2000	2001	2002
Total Number of Trades (mn)	23.1	36.9	24.1	20.5
Average Number of Trades Per Day	93,375	149,278	99,277	83,148
Total Market Turnover (HK\$ bn)	1,921.5	3,136.0	1,994.3	1,646.9
Average Transaction Size (HK\$)	83,313	85,050	82,666	80,191

Source: Market Surveillance System (MSS)

¹ Mr Joseph Lee is the Senior Manager and Miss Yan Yuhong is the Assistant Manager of the Research Department of the Supervision of Markets Division, SFC. Views expressed in this paper are the authors' and do not represent those of the SFC. Data of this paper is obtained from the SFC Market Surveillance System. While information from this source is believed to be reliable, it is not guaranteed as being accurate and the most current. Readers are free to use the information contained in this paper, but any usage should not be attributed to the SFC.

² In this study, transactions less than HK\$50,000 are referred to as small-sized transactions.

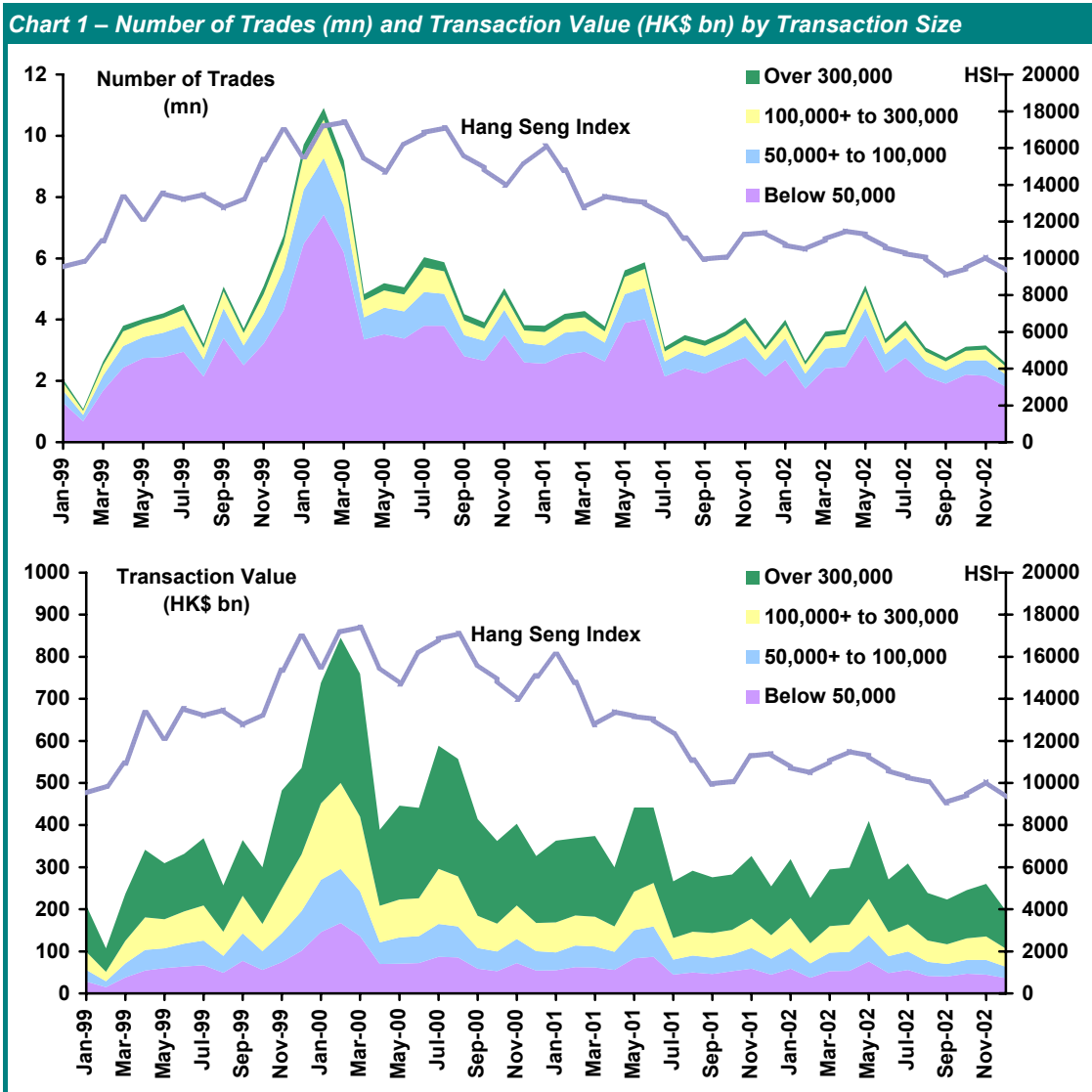
³ In this study, transactions above HK\$300,000 are referred to as large-sized transactions.

⁴ The other stocks here refer to the stocks which are neither HSI constituents nor belong to the category of Mainland enterprises (i.e. H-shares and red-chips).

Patterns and Trends of Transaction Size Distribution

Small-sized transactions account for a large share of trades, but a disproportionately small share of the transaction value (Chart 1).

- Transactions for less than HK\$50,000 constituted 68% of the total trades in 2002 (65% in 1999), but these trades accounted for 18% of the total transaction value (also 18% in 1999).
- In other words, 1% of the small-sized transactions constituted 0.26% of the transaction value in 2002 (0.28% in 1999).



Remark: Both buying and selling transaction have been counted in the calculation.
 Source: SFC Research

In contrast, large-sized transactions constitute a small share of trades, but a disproportionately large share of the transaction value.

- In 2002, although transactions above HK\$300,000 constituted 4% of the total trades (also 4% in 1999), they contributed 46% to the total transaction value (44% in 1999).

- In other words, 1% of the large-sized transactions constituted 11.5% of the transaction value in 2002 (11% in 1999). Compared to the corresponding ratio for small-sized transactions, this was 43 times higher in 2002 (38 times in 1999).

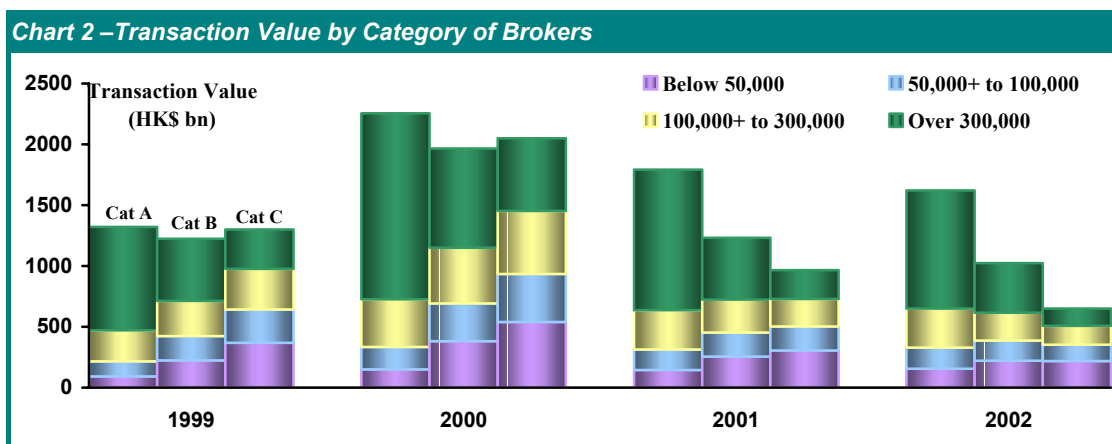
Transaction Size Distribution by Category of Brokers

	1999	2000	2001	2002
Total Number of Trades (mn)	23.1	36.9	24.1	20.5
- Category A	3.9	6.2	5.7	6.1
- Category B	7.5	12.9	8.5	7.4
- Category C	11.7	17.8	9.8	7.1
Average Number of Trades Per Day	93,375	149,278	99,277	83,148
- Category A	15,845	25,288	23,655	24,747
- Category B	30,243	52,123	35,123	29,848
- Category C	47,287	71,867	40,500	28,552
Total Market Turnover (HK\$ bn)	1,921.5	3,136.0	1,994.3	1,646.9
- Category A	660.1	1,127.3	896.1	810.6
- Category B	611.8	983.0	615.8	512.0
- Category C	649.6	1,025.7	482.4	324.4
Average Transaction Size (HK\$)	83,313	85,050	82,666	80,191
- Category A	168,669	180,483	155,891	132,605
- Category B	81,895	76,351	72,149	69,446
- Category C	55,617	57,780	49,018	45,995

Remarks: The categorisation of brokers follows the methodology of HKEx. By ranking of the turnover, those with positions 1-14 are in Category A, 15-65 are in Category B, and the others are included in Category C.

Source: Market Surveillance System (MSS)

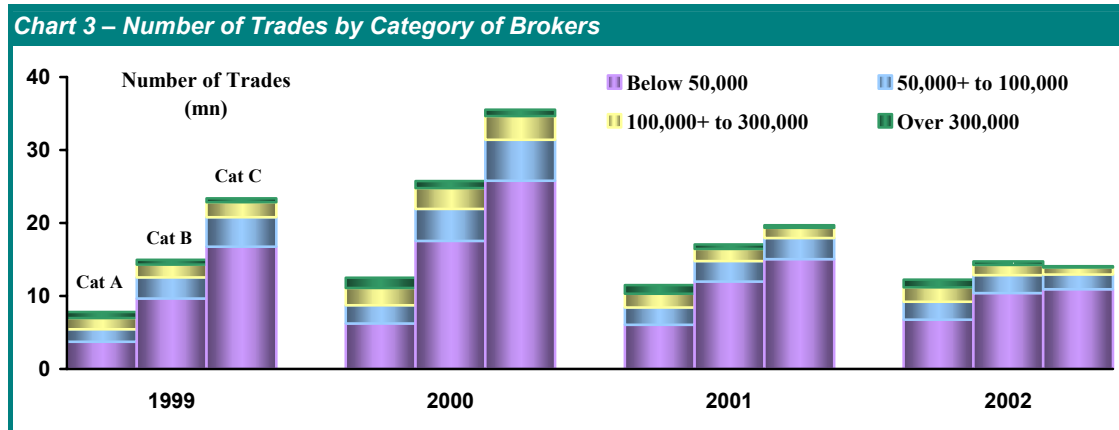
Trading has become more concentrated in large brokers. The market share of Category A brokers increased from one-third in 1999 to almost one-half in 2002. Category C brokers' market share declined from one-third in 1999 to less than 20% in 2002. During the period, the market share of Category B brokers has been relatively stable at about 31-33%.



Remark: Both buying and selling transaction have been counted in the calculation.

Source: SFC Research

In terms of number of trades, the share of Category A brokers increased from 17% in 1999 to 30% in 2002, whilst that of Category C brokers retreated from 51% to 34%. Over the same period, the share of Category B brokers has been relatively stable at about 32-36%.



Remark: Both buying and selling transaction have been counted in the calculation.

Source: SFC Research

The share of Category A brokers has been increasing in both large-sized and small-sized transactions. In addition, large brokers handle a majority of large-sized transactions (Charts 2-3). The average transaction size of Category A brokers was HK\$132,605 in 2002 (Table 2), compared with the HK\$80,191 for the whole market.

- For large-sized transactions, Category A brokers accounted for 60% of the trades and 64% of the transaction value in 2002. These increased from 43% and 50% respectively in 1999.
- For small-sized transactions, Category A brokers accounted for 24% of the trades and 26% of the transaction value in 2002. These also increased from 12% and 13% respectively in 1999.

On the other hand, Category C brokers have been losing share in both large-sized and small-sized transactions, although small brokers continue to handle a majority of small-sized transactions. The average transaction size of Category C brokers was HK\$45,995 in 2002, 65% lower than that of Category A brokers.

- For large-sized transactions, Category C brokers accounted for 12% of the trades and 9% of the transaction value in 2002. These decreased from 25% and 19% respectively in 1999.
- For small-sized transactions, Category C brokers accounted for 39% of the trades and 37% of the transaction value in 2002. These also decreased from 56% and 54% respectively in 1999.

These shares were relatively stable for Category B brokers, though their share in large-sized transactions receded and that in small-sized transactions increased.

- For large-sized transactions, Category B brokers accounted for 28% of the trades and 27% of the transaction value in 2002. These decreased from 32% and 30% respectively in 1999.
- For small-sized transactions, Category B brokers accounted for 37% of the trades and 37% of the transaction value in 2002. These increased from 32% and 33% respectively in 1999.

Relative to Category A and Category B brokers, the trading activities of Category C brokers appeared to be more sensitive to changes in market sentiment, especially during 2000-2002 when market turnover shrank.

- The transaction value handled by Category C brokers rose 58% in 2000. It then fell 53% in 2001 and 33% in 2002.
- The transaction value handled by Category A brokers rose 71% in 2000. It then dropped 21% in 2001 and 10% in 2002.
- The transaction value handled by Category B brokers rose 61% in 2000. It then decreased 37% in 2001 and 17% in 2002.

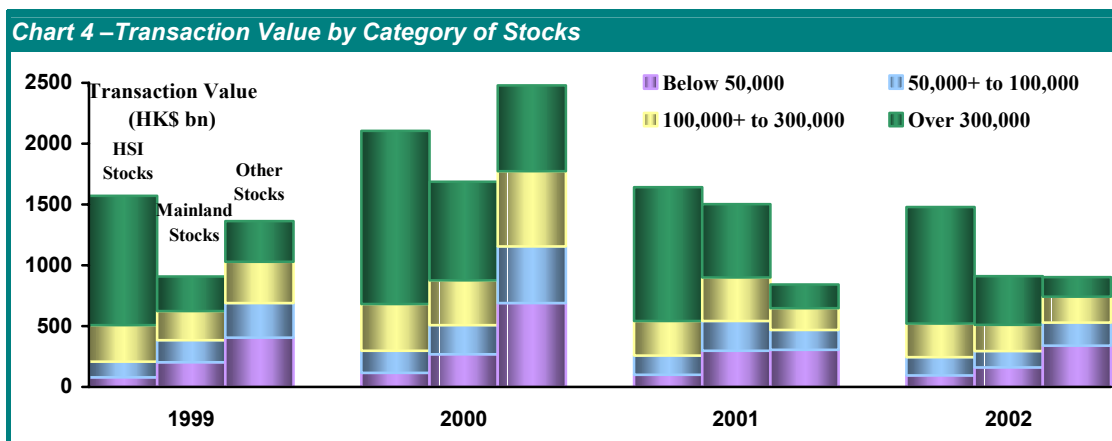
Transaction Size Distribution by Stock Type

	1999	2000	2001	2002
Total Number of Trades (mn)	23.1	36.9	24.1	20.5
- HSI Stocks	3.7	5.2	4.3	4.2
- Mainland Stocks	6.5	8.9	9.6	5.3
- Other Stocks	12.9	22.8	10.3	11.0
Average Number of Trades Per Day	93,375	149,278	99,277	83,148
- HSI Stocks	14,960	20,875	17,728	16,815
- Mainland Stocks	26,371	35,927	39,361	21,621
- Other Stocks	52,044	92,476	42,188	44,712
Total Market Turnover (HK\$ bn)	1,921.5	3,136.0	1,994.3	1,646.9
- HSI Stocks	786.1	1052.7	821.4	739.9
- Mainland Stocks	453.6	843.4	751.8	455.4
- Other Stocks	681.7	1239.8	421.1	451.6
Average Transaction Size (HK\$)	83,313	85,050	82,666	80,191
- HSI Stocks	212,741	204,160	190,675	178,140
- Mainland Stocks	69,646	95,047	78,598	85,285
- Other Stocks	53,034	54,279	41,074	40,892

Remarks: HSI constituent stocks here do not include those which are also belonged to the category of Mainland enterprises (i.e. H-shares and red-chips).

Source: Market Surveillance System (MSS)

Trading has been more concentrated on HSI stocks and Mainland stocks. The market share of HSI stocks increased from 41% in 1999 to 45% in 2002, and that of Mainland stocks rose from 24% to 28% over the period. In contrast, the market share of other stocks declined from 35% in 1999 to 27% in 2002.



Remark: Both buying and selling transaction have been counted in the calculation. HSI constituent stocks here do not include those which are also belonged to the category of Mainland enterprises (i.e. H-shares and red-chips).

Source: SFC Research

In terms of number of trades, the share of HSI stocks increased from 16% in 1999 to 20% in 2002, whilst that of Mainland stocks retreated from 28% to 26%. Over the same period, the share of other stocks shrank slightly from 56% to 54%.

The share of HSI stocks in large-sized transactions and small-sized transactions has been increasing (Charts 4-5). The average transaction size of HSI stocks was HK\$178,140 in 2002, compared with the HK\$80,191 for the whole market (Table 3).

- For large-sized transactions, HSI stocks accounted for 58% of the trades and 63% of the transaction value in 2002. These increased from 53% and 58% respectively in 2001, but were in line with the figures of 1999.
- For small-sized transactions, HSI stocks accounted for 12% of the trades and 16% of the transaction value in 2002. These increased from 9% and 11% respectively in 1999.

The share of Mainland stocks in large-sized transactions has been increasing, but that in small-sized transactions has been decreasing. The average transaction size of Mainland stocks was HK\$85,285 in 2002, also higher than that of the whole market.

- For large-sized transactions, Mainland stocks accounted for 30% of the trades and 26% of the transaction value in 2002. These increased from 20% and 17% respectively in 1999.
- For small-sized transactions, Mainland stocks accounted for 25% of the trades and 27% of the transaction value in 2002. These decreased slightly from 28% and 29% respectively in 1999.

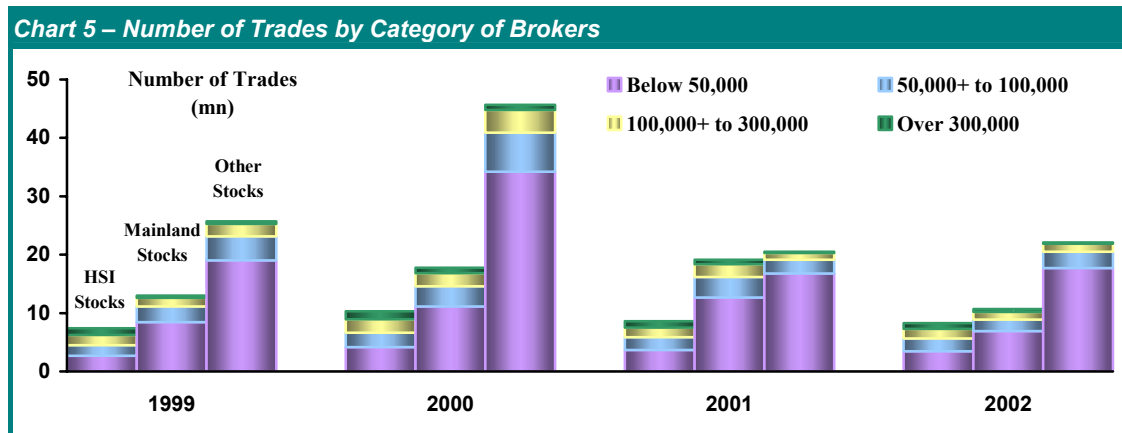
For the other stocks, they accounted for most of the small-sized transactions, but they have been losing shares in large-sized transactions. The average transaction size of the other stocks was HK\$40,892 in 2002, 77% lower than that of HSI stocks.

- For large-sized transactions, other stocks accounted for 12% of the trades and 11% of the transaction value in 2002. These decreased from 22% and 20% respectively in 1999.
- For small-sized transactions, other stocks accounted for 63% of the trades and 57% of the transaction value in 2002. These were close to the levels of 63% and 59% respectively in 1999.

Mainland stocks and other stocks seem to be more sensitive to changes in market sentiment, and the patterns of transactions did not follow that for the whole market. Changes in market turnover were largely attributable to the changes in the turnover of these stocks.

- The transaction value of the whole market rose 63% in 2000. It then retreated 36% in 2001 and 17% in 2002.
- The transaction value of HSI stocks rose 34% in 2000. It then dropped 22% in 2001 and 10% in 2002. The rise and fall were consistently smaller than the whole market.
- The transaction value of Mainland stocks rose 86% in 2000. It then decreased 11% in 2001 and 39% in 2002. The rise and fall could be larger and smaller than the whole market.

- The transaction value of other stocks rose 82% in 2000. It then fell 66% in 2001 and inched up 7% in 2002. The pattern of transactions did not follow that for the whole market.



Remark: Both buying and selling transaction have been counted in the calculation. HSI constituent stocks here do not include those which are also belonged to the category of Mainland enterprises (i.e. H-shares and red-chips).
 Source: SFC Research